

convexity of the forehead, flattening as it healed, pressed back the mass with steady force upon those parts of the brain whose irritation produces general convulsions. No *perfect* cicatrix had ever formed until within a very short time previous to his death.

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ART. XIII.—*Three Cases of Scleroderma ; with Remarks.*

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CONSIDERABLE attention has of late been drawn to the comparatively rare and very obscure disease for which the name of scleroderma, or scleriosis, has been proposed. I am not aware of any cases of a similar nature having been reported in American medical journals—at least in the latest and able account of this disease in the January and February numbers, of 1869, of the *Deutsche Klinik*, no mention is made of any author who observed this affection on this side of the Atlantic. Three cases, bearing great resemblance to the description usually given of this disease, came under my notice within the last five years. Two of them I still occasionally meet, and have purposely visited them again before this report was written.

CASE I.—N. W., a clothier, æt. 52, had a severe attack of dysentery six years ago, which left him in an enfeebled condition. He continued to be troubled with dyspeptic symptoms and deranged bowels, and experienced the entire loss of his virile power. During the following winter he suffered with a harassing cough unaccompanied by expectoration, which further reduced him in weight and strength. It was about this time that he first noticed the hardness of both his arms and hands. When I was called to see him, nearly five years ago, he still suffered with diarrhœa, and had not regained his sexual power. He had formerly been fleshy and of full habit, but he began to look thin and anæmic. The pulse was weak and slow, the cardiac and thoracic functions normal, and the only symptoms of which he complained were occasional gastralgic pains and frequency of passing small quantities of urine, which is of healthy character. The hardness of the arms does not reach to the shoulders, which seem to be of the natural size and colour, but the skin cannot be raised nor wrinkled, though its sensibility is unimpaired. Both hands and the fingers present a singular rounded appearance, and are of stony hardness. When the dorsal side of the hands are grasped they feel cold and clammy, or rather fishy. Their surface is curiously mottled by purplish polygonal outlines that follow the seeming intersections of the small superficial veins, and shading off towards the centre of the spaces thus formed, where their tint has a remarkable resemblance to the glistening white of the eye. Hands and arms are covered with hair, and the tactile sensibility of the fingers has suffered very little.

The treatment was first directed against the diarrhœa, and a proper diet and regimen enjoined; but neither astringents, opiates, iron, quinia

and strychnia, nor rest and strict attention to every approved measure could in the least regulate the action of the bowels. In the following summer he went through a course of sea-bathing that slightly mitigated the diarrhœa and somewhat improved his general appearance, without, however, lessening the cutaneous induration. The diarrhœa was eventually checked by persistent cold water packing of the whole body, and the good effects which followed the employment of hydrotherapeutics in this case was rendered further apparent by the complete cessation of the scleriosis of both arms. No impression, however, was made by this treatment on the hardened condition of the hands and fingers, nor was a subsequent course of iodide of potassium more successful. At the present time the disease seems to be stationary, the impotency still exists, and thus far no complication has occurred.

It ought to be mentioned as suggesting the probable cause of the disease in this case that the occupation of the patient obliged him to be most of his time outside and within sight of his place of business through the most inclement season of the year.

CASE II.—M. H., a servant girl, æt. 21, said that she had "caught a cold" whilst washing and scrubbing out of doors on a raw, windy day in March, 1866. The next day she felt herself able to do some easy housework, but was troubled with a stiff neck and pains in all her limbs. She thought she had the "mumps," and paid no further attention to the swelling of her neck until, in the course of a few weeks, the shoulders and the nape of the neck became so rigid as to interfere with the movements of her head and arms. At this time I was sent for to attend her, when she presented the following appearance: The whole face, the neck, both arms and hands, the chest and back looked greatly swollen, and the skin, which was of a natural color, felt as hard as leather, and cooler than that of the rest of the body. Over the back in particular, the cutaneous surface seemed to be the thickest and hardest, and gave the sensation to the examining fingers as if they were touching the skin of a smoked ham. Nothing else was complained of than the inconvenience resulting from this induration. Inunctions with the compound ointment of iodine and the internal administration of saline diaphoretics made not the least impression on the disease. She never felt uncomfortably warm during the hottest season of the year. When exposed to the direct heat of the sun she was attacked by an eruption (prickly heat, *Lichen Tropicus*?) resembling round papulæ of the size of a split pea, and of a transparent whiteness. On incising these papulæ a drop or two of a colourless, serous fluid escaped without lessening their size. This eruption always disappeared on the approach of cool weather. The treatment pursued during the following summer and winter consisted of gradually increasing doses of the iodide of potassium, alkaline remedies, principally the bicarbonate of potash and the muriate of ammonia. Mild aperients were also sometimes called into requisition to remove dizziness. The appetite, sleep, and the other functions, with the exception of the absence of cutaneous secretion, remained good. When I saw her last spring, the induration of the skin, though in a slighter degree, had extended over the whole trunk and lower extremities, and singularly enough her general health seemed not to have suffered in the least as she still attended to her usual work. The summer following she began to sweat profusely without any apparent cause, from which time the induration began gradually to subside. The legs and feet, and then the chest,

breasts, hands, arms, neck, and face assumed their natural consistence, and only the back and shoulders still feel very hard, nor can the skin be raised from the subjacent tissue.

CASE III.—J. M., æt. 28, a merchant, of a stout and robust appearance, resided in Memphis, Tenn., for the last ten years, where he had enjoyed excellent health. He had been affected by the disease, for which he consulted me on a casual visit to this city, since the last fifteen months. The hardness commenced at the fingers of the right hand, and in a short time the hand and forearm, to which parts the disease is now limited, were also similarly affected. The skin feels as hard as wood, the colour, temperature, and cutaneous sensibility are natural. The patient attributes his disease to the removal of a wart from one of his fingers by a heated needle.

Great difficulty has been experienced to give a proper definition of this strange disease, for up to the present time only about forty cases have been reported, whose history and symptomatology offer considerable discrepancies. But few of them have been submitted to post-mortem examination owing to their very chronic course, and to the circumstance that a fatal termination is generally caused by complications. Neither age nor sex is exempt from this disease, and the most various causes have been assigned for its origin. The principal and distinctive feature of this affection is evidently the presence of marked induration of more or less portions of the cutaneous surface. In none of the cases reported above could it be positively ascertained whether the inflammatory process entered as a characteristic element into their pathology, although the rapid development of the dermal hardness in Case No. II. hardly admits of any other interpretation. All of them pursued a chronic course, and showed a singular inveteracy without greatly interfering with the general health. According to the author already quoted, the induration may either depend on the increase of the connective tissue of the corium alone, or that besides this exuberant growth in which also the elastic fibres may participate, the subcellular tissue may be changed into a hard mass. In either case the adipose layer is finally removed. As far as any conclusion can be arrived at concerning the pathology of this disease from two of the cases just related, in view of the previous history of the patients the mode of invasion, and the effects of treatment, some support is lent to the explanation ventured by several distinguished pathologists who ascribe the induration of the integumentary tissue to lymphatic infiltration. In the absence of a description of the morbid anatomical appearances nothing of course can be elicited which would either corroborate or refute the opinion of Rasmussen who affiliates scleroderma with Elephantiasis Arabum.